March 21, 2019

MEMORANDUM FOR: Distribution Email

FROM: Chris Caruso Magee
Configuration Manager, NCEP Central Operations

SUBJECT: Scheduled Operational Changes and Upgrades for CPC, EMC, OPC, and WPC

Climate Prediction Center

The following accelerated items were implemented this past week:

None

The following approved changes will be implemented the week of March 25, 2019:

RFC 1186 - Remove 'to_upper' functions in the 6-10 day and 8-14 day message composition scripts to allow for mixed case text. To be implemented on March 26 at 1200Z.

The following RFCs are in progress:

None

The following NCO RFCs which may affect CPC are scheduled to be implemented the week of March 25:

RFC 5524 - NetApp volumes will be moved between nodes in the College Park cluster to reduce the workloads on heavily utilized nodes. Analysis shows that once work is complete current nodes should be around 60% utilized allowing operations to once again fit and allow future work. - This change is being made to reduce system utilization on nastore5, nastore6, nastore7 and nastore8. Implementation was to begin on March 18 at 1300Z and be completed by 2100Z on March 22; postponed due to CWD; new dates are TBD. Tentative start date is sometime the week of March 25.

RFC 5549 – Install the vim-X11 RPM package on Venus and Mars. A user has requested gvim to be installed on the WCOSS Dell systems. Gvim is currently installed on Tide/Gyre and Luna/Surge. To be implemented on March 25 at 1730Z (dev WCOSS) and March 26 at 1730Z (prod WCOSS).

Environmental Modeling Center

The following accelerated items were implemented this past week:

None

The following approved changes will be implemented the week of March 25, 2019:

None

The following RFCs are in progress:

None

The following NCO RFCs which may affect EMC are scheduled to be implemented the week of March 25:

RFC 5524 - NetApp volumes will be moved between nodes in the College Park cluster to reduce the workloads on heavily utilized nodes. Analysis shows that once work is complete current nodes should be around 60% utilized allowing operations to once again fit and allow future work. - This change is being made to reduce system utilization on nastore5, nastore6, nastore7 and nastore8. Implementation was to begin on March 18 at 1300Z and be completed by 2100Z on March 22; postponed due to CWD; new dates are TBD. Tentative start date is sometime the week of March 25.

RFC 5528 - Reduce the tasks per node requested for the blend_prep_hrrrx_wx, blend_prep_gfs_wx, and blend_prep_rapx_wx jobs on the WCOSS Phase 3 (Dell) to avoid exceeding the amount of memory available on a node. Node usage per run will increase from 3 to 4 nodes for hrrrx, from 20 to 23 nodes for gfs, and from 5 to 6 nodes for rapx. Was to be implemented on March 18 at 1430Z; postponed due to CWD; new date is March 25 at 1430Z.

RFC 5534 – On WCOSS, modify the triggers for three RTOFS jobs to be based on time rather than completion of the NAM forecast. There is no longer a need for these RTOFS jobs to wait for the NAM forecast to complete. This change allows RTOFS to run on time when the NAM is delayed. Was to be implemented on March 19 at 1415Z; postponed due to CWD; new date is March 25 at 1415Z.

RFC 5535 - On WCOSS, implement bug fixes for the RAP and HRRR.
      1): Add fsync in the rap/hrrr forecast code to avoid a gpfs meta data flush delay issue which causes the post job occasionally write out partial data.
      2): Modify 'exhrrr_postsubh.sh.ecf' logic for the previous three 15 minutes sub-hourly output files. This fix will prevent the timing issue between sub-hourly processes which sometimes causes failures in production.
Was to be implemented on March 19 at 1420Z; postponed due to CWD; new date is March 25 at 1420Z.

RFC 5554 – On WCOSS, transition the Sea Ice Drift Model from IBM Tide/Gyre Phase 1 to DELL Venus/Mars on WCOSS. To be implemented on March 26 at 1600Z.

RFC 5555 – On WCOSS, transition the vessel_icing model from IBM Phase 1 Tide/Gyre to Dell Venus/Mars. To be implemented on March 26 at 1600Z.

Ocean Prediction Center

The following accelerated items were implemented this past week:

RFC 1187 – Updated the OPC shift log program to remove the email address of an employee who has left OPC. Implemented on March 18 at 1330Z.

The following approved changes will be implemented the week of March 25, 2019:

RFC 1188 – 'NA_cleanup.opc.csh' v19.03.25 - The file cleanup script is being updated to remove 72 hour first guess vgf files from the forecast desks and to not attempt to clean up the GOES-17 and CASE-STUDIES directories. The opcops user does not (and should not) have permission to remove those files. This will reduce 'permission denied' error messages in the log files and prevent accidental erasures in the future. To be implemented on March 25 at 1600Z.

RFC 1189 – 'abipsnatur.tbl' v19.03.26, 'enhance.tbl' v19.03.26 - At 1400 UTC on March 26, NASA SPoRT will update the GOES-East ABI Pseudo Natural Color area files to the correct 96-color palate. The existing product does not display correctly in NAWIPS. These table changes will have to be made in order for the new images to display correctly. To be implemented on March 26 at 1400Z.

RFC 1190 – 'auto_create_launch_500_fax.py', 'opcmod_emailOAB.py' - A recent bug in ImageMagick was causing some 500mb radiofax and web charts to appear blank. Because images were still being transmitted, none of OPC's normal error checking caught the issue. The 500mb creation script is being modified to email an error if file sizes are too small. Additionally begin archiving the TIF and color GIF images, and make minor improvements to email error message formatting. To be implemented on March 25 at 1600Z.

The following RFCs are in progress:

None

The following NCO RFCs which may affect OPC are scheduled to be implemented the week of March 25:

RFC 5524 - NetApp volumes will be moved between nodes in the College Park cluster to reduce the workloads on heavily utilized nodes. Analysis shows that once work is complete current nodes should be around 60% utilized allowing operations to once again fit and allow future work. - This change is being made to reduce system utilization on nastore5, nastore6, nastore7 and nastore8. Implementation was to begin on March 18 at 1300Z and be completed by 2100Z on March 22; postponed due to CWD; new dates are TBD. Tentative start date is sometime the week of March 25.

RFC 5554 – On WCOSS, transition the Sea Ice Drift Model from IBM Tide/Gyre Phase 1 to DELL Venus/Mars on WCOSS. To be implemented on March 26 at 1600Z.

RFC 5555 – On WCOSS, transition the vessel_icing model from IBM Phase 1 Tide/Gyre to Dell Venus/Mars. To be implemented on March 26 at 1600Z.

Weather Prediction Center

The following accelerated items were implemented this past week:

None

The following approved changes will be implemented the week of March 25, 2019:

None

The following RFCs are in progress:

None

The following NCO RFCs which may affect WPC are scheduled to be implemented the week of March 25:

RFC 5524 - NetApp volumes will be moved between nodes in the College Park cluster to reduce the workloads on heavily utilized nodes. Analysis shows that once work is complete current nodes should be around 60% utilized allowing operations to once again fit and allow future work. - This change is being made to reduce system utilization on nastore5, nastore6, nastore7 and nastore8. Implementation was to begin on March 18 at 1300Z and be completed by 2100Z on March 22; postponed due to CWD; new dates are TBD. Tentative start date is sometime the week of March 25.

Please note that security-related RFCs are never listed in the RFC memo.

---- OPERATIONAL ANNOUNCEMENTS ----

The CPC/OPC/WPC Configuration Management documents are available at https://sites.google.com/a/noaa.gov/nws-ncep-nco-cm/.

Please review these documents if you have questions prior to submitting changes for CPC/OPC/WPC configurable items.

Users who wish to view their network utilization via the Scrutinizer appliance may request access from NCO/IWSB. Please send an account request to the NCWCP Helpdesk at NCWCP.helpdesk@noaa.gov.